

A) Amendments to the Claims:

Claim 1. (currently amended) A substrate temperature apparatus for measuring the temperature of a substrate ~~characterized in that it is provided with,~~ said apparatus comprising:

a chip made of metal material reflecting infrared ~~ray or rays and~~ electromagnetic ~~wave~~ waves;

said chip having an ~~inserting~~ insertion opening for inserting thermocouple wires and which chip is crushed and deformed with said thermocouple wires inserted[;]~~united to unite said~~ chip together with said thermocouple wires;

said chip contacted with said substrate; and

a supporting member or members, made of material of lower thermal conductivity than said chip, ~~for~~ supporting said chip.

Claim 2. (currently amended) A substrate temperature measurement apparatus according to claim 1 ~~in~~ which it is provided with pushing means for pushing said chip ~~to~~ against said substrate.

Claim 3. (currently amended) A substrate temperature measurement apparatus according to claim 1 ~~or 2 in~~ which it is provided with shaking means for enabling said chip to shake on said supporting member.

Claim 4. (currently amended) A substrate temperature measurement apparatus according to ~~any one of claims~~ claim 1 ~~to 3~~ in which said chip is made of any one material selected from Al, Cu, Pt, Au and Ag.

Claim 5. (currently amended) A substrate temperature measurement apparatus according to ~~any one of claims~~ claim 1 to 4 in which said supporting member is made of quartz material.

Claim 6. (currently amended) A substrate temperature measurement apparatus according to ~~any one of claims~~ claim 1 to 5 in which said ~~inserting~~ insertion opening is so shifted from the center of said chip that the distance between said ~~inserting~~ insertion opening and the contact point of said substrate and said chip is no longer than the distance between the portion of said chip facing to said support member and said ~~inserting~~ insertion opening.

Claim 7. (currently amended) A processing apparatus for processing a substrate under infrared ray heating or a plasma generating condition ~~characterized in that it is provided with, said apparatus comprising:~~

a processing chamber in which a substrate is arranged;

a chip made of metal material reflecting infrared ~~ray or rays and~~ electromagnetic wave: waves and having an ~~inserting~~ insertion opening for inserting thermocouple wires and which chip is crushed and deformed with said thermocouple wires inserted[;]~~united~~ to unite said chip together with said thermocouple wires;

said chip contacted with said substrate; and

a supporting member or members made of material of lower thermal conductivity than said chip ~~for supporting said chip.~~

Claim 8. (currently amended) A processing chamber according to claim 7 in which it is provided with pushing means for pushing said chip ~~to~~ against said substrate.

Claim 9. (currently amended) A processing chamber according to claim 7 ~~or 8~~ in which it is provided with shaking means for enabling said chip to shake on said supporting member.

Claim 10. (currently amended) A processing apparatus according to ~~any one of claims~~ claim 7 ~~to 9~~ in which said chip is made of any one material selected from Al, Cu, Pt, Au and Ag.

Claim 11. (currently amended) A processing apparatus according to any one of ~~claims~~ claim 7 ~~to 10~~ in which said supporting member is made of quartz material.

Claim 12. (currently amended) A processing apparatus according to ~~any one of claims~~ claim 7 ~~to 11~~ in which said inserting insertion opening is so shifted from the center of said chip that the distance between said ~~inserting~~ insertion opening and the contact point of said substrate and said chip is longer than the distance between the portion of said chip facing to said support member and said ~~inserting~~ insertion opening.

Claim 13. (currently amended) A processing apparatus according to ~~any one of claims~~ claim 7 ~~to 12~~ in which said chip is contacted with ~~the~~ a back surface of said substrate ~~the,~~ a front surface of which receives infrared ~~ray~~ rays or electromagnetic ~~wave~~ waves.

Claim 14. (new) A method for measuring the temperature of a substrate, the method comprising:

providing a chip of metal material which reflects infrared rays and electromagnetic waves;

inserting thermocouple wires into an insertion opening provided in said chip;

crushing and deforming said chip with said thermocouple wires inserted to unite said chip and said thermocouple wires together;

contacting said crushed chip with said substrate; and

supporting said chip with a material of lower thermal conductivity than said chip.

Claim 15. (new) The method of claim 14, including the step of constantly urging said chip against said substrate.

Claim 16. (new) The method of claim 14, including the step of shaking said chip on said supporting member.

Claim 17. (new) The method of claim 14, wherein said chip is made of any one material selected from Al, Cu, Pt, Au and Ag.

Claim 18. (new) The method of claim 14, wherein said supporting member is made of quartz material.

Claim 19. (new) The method of claim 14, wherein said insertion opening is so shifted from the center of said chip that the distance between said insertion opening and the contact point of said substrate and said chip is no longer than the distance between the portion of said chip facing to said support member and said insertion opening.

Claim 20. (new) The method of claim 14, wherein said chip is contacted with a back surface of said substrate, a front surface of which receives infrared rays or electromagnetic waves.